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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,027	02/20/2004	Yonichi Tei	09619/100L153-US1	1726

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EXAMINER

RESAN, STEVAN A

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/784,027	TEI ET AL.	
	Examiner	Art Unit	
	Stevan A. Resan	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2-15-2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

HC

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The detail of the head surface structure that interacts with the media surface and which is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The claim is rejected for the reasons of record.

3. Claims 9 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention due to the term "rugged portion" for the reasons of record.

4. Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Brekner et al US 5439722 as previously set forth.

5. Claims 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brekner et al US 5439722 as applied to claims 5 for the reasons of record.

6. Claims 7, 8, 10, 11, 14, 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Brekner as applied to claims 5 and 6.

Brekner et al teach the drying of thermoplastic norborene resin under vacuum at 80 °C. While Brekner et al do not teach the content of nitrogen oxygen or low boiling aliphatic organic components as in claims 7, it appears that the resin of Brekner would inherently have these properties and therefore an injection molded substrate of this resin would have the surface properties of claims 10, 11, 14, 15 since these properties are the result of the absence of the volatiles in the resin..

7. Applicant's arguments filed 15 February 2005 have been fully considered but they are not persuasive.

Applicants have amended Claim 16 to specify that the "output is a measure of resistance between the surface of the head and the surface of the protection layer" and argue that one of ordinary skill in the art would understand the full scope of the claim.

However, the examiner disagrees. Applicants have claimed a specific numerical value of a test in which all of the variables in the test have not been defined. The details of the head surface structure are as important to the results as the details of the magnetic recording media surface structure. The claim does not depend from a claim defining the surface structure of the media nor of the surface structure of the head let alone both where both are required for one of ordinary skill to reproduce the results and determine the metes and bounds of the claim.

Applicants argue that the specification expressly states that a "rugged portion" is a "surface defect" and that the specification and claims define a rugged portion as being "1 μm X 1 μm or wider in area. However this does not define a rugged portion only an area. For example is a rugged portion a bump or projection or a valley? Or is it an area where both occur? Since it is not defined then how can it be measured? Even under an optical microscope?

Applicants argue against the rejection under 35 USC 102 on the basis that Brekner's step of drying at 0.2 bar does not qualify as "drying under vacuum" as recited in claim 5 and that "drying under vacuum" refers to a pressure of 20 Pa or lower. However the examiner must give the claim the broadest interpretation, any pressure of less than one atmosphere may broadly be interpreted as a vacuum. Furthermore there is no clear definition in the specification that limits or defines a vacuum. 20 Pa is merely a preferred embodiment. Finally the examiner points out that

this is a process limitation. Process limitations in article claims can be given no weight unless it can be shown that they result in a patentable article.

While there appears to be patentable subject matter, i.e. an article, based upon the showing of the examples of the specification the claims are not commensurate in scope with the showing.

The examples are based upon the drying of resin pellets of greater than or equal to 1.5 mm thickness under specific conditions. See specification page 14 line 15-page 15 line 63. Applicants' invention appears to be based upon the discovery that drying thick resin pellets under very low vacuum and elevated temperatures can vastly improve surface properties of subsequently injection molded substrates. .

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stevan A. Resan whose telephone number is (571) 272-1513.

The examiner can normally be reached on Tues-Fri from 7:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached on (571) 272-1284.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718.



STEVAN A. RESAN
PRIMARY EXAMINER